SECTION 08 71 00 DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Door hardware, including electric hardware.
 - 2. Storefront and entrance door hardware.
 - 3. Hold-open closers with fire-alarm interface.
 - 4. Power supplies for electric hardware.
 - 5. Low energy door operators plus sensors and actuators.
 - 6. Door position switches.
- B. Related Divisions:
 - 1. Division 06 door hardware installation
 - 2. Division 07 sealant at exterior thresholds
 - Division 08 metal doors and frames, wood doors, storefront and glazed curtainwall systems.
 - 4. Division 21 fire and life safety systems
 - 5. Division 28 security access systems
- C. Specific Omissions: Hardware for the following is specified or indicated elsewhere.
 - 1 Windows
 - 2. Hirsch proximity card access control system.
 - 3. VingCard quest room and auxiliary doors card access system.
 - 4. Cabinets, including open wall shelving and locks.
 - 5. Signs.
 - 6. Toilet accessories, including grab bars.
 - 7. Installation.
 - 8. Rough hardware.
 - 9. Conduit, junction boxes & wiring.
 - 10. Pocket door hardware at residential unit bedrooms and bathrooms.
 - 11. Access doors and panels, except cylinders where detailed.
 - 12. Corner Guards.

1.2 REFERENCES:

- A. Use date of standard in effect as of Bid date.
 - American National Standards Institute ANSI 156.18 -Materials and Finishes.
 - a) ICC/ANSI A117.1 1998 Specifications for making buildings and facilities usable by physically handicapped people.
 - b) ANSI A156.18 Materials and Finishes
 - 2. ADA Americans with Disabilities Act of 1990
 - 3. BHMA Builders Hardware Manufacturers Association

- 4. DHI Door and Hardware Institute
- 5. NFPA National Fire Protection Association
 - a) NFPA 80 Fire Doors and Windows
 - b) NFPA 105 Smoke and Draft Control Door Assemblies
 - c) NFPA 252 Fire Tests of Door Assemblies
- 6. UL Underwriters Laboratories
 - a) UL10C Positive Pressure Fire Tests of Door Assemblies.
 - b) UL 305 Panic Hardware
- 7. WHI Warnock Hersey Incorporated State of California Building Code
- 8. Local applicable codes
- 9. SDI Steel Door Institute
- 10. WI Woodwork Institute
- B. Abbreviations
 - 1. Manufacturers: see table at 2.1.A of this section
 - 2. Finishes: see 2.7 of this section.

1.3 SUBMITTALS & SUBSTITUTIONS

- A. SUBMITTALS: Submit six copies of schedule per D. Only submittals printed one sided will be accepted and reviewed. Organize vertically formatted schedule into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Minimum 10pt font size. Include following information:
 - Type, style, function, size, quantity and finish of hardware items.
 - 2. Use BHMA Finish codes per ANSI A156.18.
 - 3. Name, part number and manufacturer of each item.
 - 4. Fastenings and other pertinent information.
 - Location of hardware set coordinated with floor plans and door schedule.
 - Explanation of abbreviations, symbols, and codes contained in schedule.
 - 7. Mounting locations for hardware.
 - 8. Door and frame sizes, materials and degrees of swing.
 - 9. List of manufacturers used and their nearest representative with address and phone number.
 - 10. Catalog cuts.
 - 11. Point-to-point wiring diagrams.
 - 12. Manufacturer's technical data and installation instructions for electronic hardware.
- B. Bid and submit manufacturer's updated/improved item if scheduled item is discontinued.

- C. Deviations: Highlight, encircle or otherwise identify deviations from "Schedule of Finish Hardware" on submittal with notations clearly designating those portions as deviating from this section.
- D. If discrepancy between drawings and scheduled material in this section, bid the more expensive of the two choices, note the discrepancy in the submittal and request direction from Architect for resolution.
- E. Substitutions per Division 1. Include product data and indicate benefit to the Project. Furnish operating samples on request.
- F. Items listed with no substitute manufacturers have been requested by Owner to meet existing standard.
- G. Furnish as-built/as-installed schedule with closeout documents, including keying schedule, riser and point-to-point wiring diagrams, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.

1.4 QUALITY ASSURANCE:

- A. Qualifications:
 - 1. Hardware supplier: direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during course of work for project hardware consultation to Owner, Architect and Contractor.
 - a) Responsible for detailing, scheduling and ordering of finish hardware. Detailing implies that the submitted schedule of hardware is correct and complete for the intended function and performance of the openings.
- B. Hardware: Free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.
- C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.
- D. Fire-Rated Openings: NFPA 80 compliant. Hardware UL10C (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.
- E. Furnish hardware items required to complete the work in accordance with specified performance level and design intent, complying with manufacturers' instructions and code requirements.

1.5 DELIVERY, STORAGE AND HANDLING:

- A. Delivery: coordinate delivery to appropriate locations (shop or field).
 - 1. Permanent keys and cores: secured delivery direct to Owner's representative.
- B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.
- C. Storage: Provide securely locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.6 PROJECT CONDITIONS AND COORDINATION:

- A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical the same operation and quality as type specified, subject to Architect's approval.
- B. Coordination: Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents. Furnish related trades with the following information:
 - 1. Location of embedded and attached items to concrete.
 - 2. Location of wall-mounted hardware, including wall stops.
 - Location of finish floor materials and floor-mounted hardware.
 - 4. At masonry construction, coordinate with the anchoring and hollow metal supplier prior to frame installation by placing a strip of insulation, wood, or foam, on the back of the hollow metal frame behind the rabbet section for continuous hinges, as well as at rim panic hardware strike locations, silencers, coordinators, and door closer arm locations. When the frame is grouted in place, the backing will allow drilling and tapping without dulling or breaking the installer's bits.
 - 5. Locations for conduit and raceways as needed for electrical, electronic and electro-pneumatic hardware items. Fire/life-safety system interfacing. Point-topoint wiring diagrams plus riser diagrams to related trades.
 - Coordinate: flush top rails of doors at outswinging exteriors, and throughout where adhesive-mounted seals occur.
 - 7. Manufacturers' templates to door and frame fabricators.

- Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation.
- D. Environmental considerations: segregate unused recyclable paper and paper product packaging, uninstalled metals, and plastics, and have these sent to a recycling center.

1.7 WARRANTY:

A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' written warranties:

1.	Locksets:	Three years
2.	Exit Devices:	Three years mechanical One year electrical
3.	Closers:	Ten years mechanical Two years electrical
4.	Hinges:	Life of Bldg
5.	Other Hardware	Two years

1.8 COMMISSIONING:

- A. Conduct these tests prior to request for certificate of substantial completion:
 - 1. With installer present, test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
 - 2. With installer, access control contractor and electrical contractor present, test electrical, electronic and electro-pneumatic hardware systems for satisfactory operation
 - 3. With installer and electrical contractor present, test hardware interfaced with fire/life-safety system for proper operation and release.

PART 2 PRODUCTS

2.1 MANUFACTURERS:

A. Manufacturers and their abbreviations used in this schedule:

DHS Door & Hardware Systems, Inc.

FAL Falcon

GLY Glynn-Johnson Hardware

IVE H. B. Ives

LCN LCN Closers

NGP National Guard Products

SCE Schlage Electronics

TRI Trimco Manufacturing

VIN Ving Card Systems

VON Von Duprin

WIK Wikk Industries, Inc.

2.2 HINGING METHODS:

- A. Drawings typically depict doors at 90 degrees, doors will actually swing to maximum allowable. Use wide-throw conventional or continuous hinges as needed up to 8 inches in width to allow door to stand parallel to wall for true 180-degree opening. Advise architect if 8-inch width is insufficient.
- B. Conform to manufacturer's published hinge selection standard for door dimensions, weight and frequency, and to hinge selection as scheduled. Where manufacturer's standard exceeds the scheduled product, furnish the heavier of the two choices, notify Architect of deviation from scheduled hardware.
- Conventional Hinges: Steel or stainless steel pins, button tips and exposed bearing races. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.
 - 1. Outswinging exterior doors: non-ferrous with non-removable (NRP) pins and security studs.
 - 2. Non-ferrous material exteriors and at doors subject to corrosive atmospheric conditions.
- D. Continuous Hinges:
 - 1. Geared-type aluminum.
 - a) Use wide-throw units where needed for maximum degree of swing, advise architect if commonly available hinges are insufficient.
 - 2. Pinned steel/stainless steel type: continuous stainless steel, 0.25-inch diameter stainless-steel hinge pin.
 - a) Use engineered application-specific wide-throw units as needed to provide maximum swing degree of swing, advise architect if required width exceeds 8 inches.

2.3 LOCKSETS, LATCHSETS, DEADBOLTS:

E. Extra Heavy Duty Cylindrical Locks and Latches: Falcon "T" series as scheduled.

- 1. Chassis: cylindrical design, corrosion-resistant plated cold-rolled steel, through-bolted.
- 2. Latch Retractors: forged steel. Balance of inner parts: corrosion-resistant plated steel, or stainless steel.
- 3. Backset: 2.75 inches typically, more or less as needed to accommodate frame, door or other hardware.
- 4. Electric operation: Manufacturer-installed continuous duty solenoid.
- 5. Strikes: 16 gage curved steel, bronze or brass with 1.00 inch deep box construction, lips of sufficient length to clear trim and protect clothing.
- 6. "Dane" design.
- 7. Accepted equivalents: Schlage "ND" series and Yale "5400" series
- F. Standard Duty Cylindrical Locks and Latches: Falcon "Y" series as scheduled.
 - 1. Chassis: tubular design, corrosion-resistant plated cold-rolled steel, through-bolted.
 - 2. Locking Spindle: stainless steel, interlocking design.
 - 3. Latch Retractors: forged steel. Balance of inner parts: corrosion-resistant plated steel or stainless steel.
 - 4. Backset: 2.75 inches typically, more or less as needed to accommodate frame, door or other hardware.
 - 5. Lever Trim: accessible design, independent operation, spring-cage supported, minimum 2.00 inches clearance from lever mid-point to face of door.
 - 6. "Dane" design.
 - 7. Certifications:
 - a) ANSI A156.2, 1994, Series 4000, Grade 2.
 - b) UL listed for A label and lesser class single doors up to 4 feet x 8 feet.

2.4 EXIT DEVICES / PANIC HARDWARE

A. General features:

- 1. Independent lab-tested 1,000,000 cycles.
- 2. Push-through push-pad design. No exposed push-pad fasteners, no exposed cavities when operated. Return stroke fluid dampeners and rubber bottoming dampeners, plus anti-rattle devices.
- 3. Deadlocking latchbolts, 0.75 inch projection.
- 4. End caps: impact-resistant, flush-mounted. No raised edges or lips to catch carts or other equipment.
- 5. No exposed screws to show through glass doors.
- 6. Non-handed basic device design with center case interchangeable with all functions, no extra parts required to effect change of function.
- 7. Releasable in normal operation with 15-pound maximum operating force per UBC Standard 10-4, and with 32-pound maximum pressure under 250-pound load to the door.

B. Specific features:

- 8. Lever Trim: breakaway type, forged brass or bronze escutcheon min. 0.130 inch thickness, compression spring drive, match lockset lever design.
- 9. Fire-Labeled Devices: UL label indicating "Fire Exit Hardware". Vertical rod devices less bottom rod (LBR) unless otherwise scheduled.
- 10. Inpact recessed devices: 1.25 inch projection when push-pad is depressed. Sloped metal end caps to deflect carts, etc. No pinch points to catch skin between touchbar and door.
- 11. Delayed Egress Devices: Function achieved within single exit device component, including latch, delayed locking device, request-to-exit switch, nuisance alarm, remote alarm, key switch, indicator lamp, relay, internal horn, door position input, external inhibit input plus fire alarm input. NFPA 101 "Special Locking Arrangement" compliant.
- 12. Electrically Operated Devices: Single manufacturer source for electric latch retraction devices, electrically controlled trim, power transfers, power supplies, monitoring switches and controls.

2.6 CLOSERS

A. Surface Closers:

- 1. Full rack-and-pinion type cylinder with removable nonferrous cover and cast iron body. Double heat-treated pinion shaft, single piece forged piston, chrome-silicon steel spring.
- 1. ISO 2000 certified. Units stamped with date-of-manufacture code.
- 2. Independent lab-tested 10,000,000 cycles.
- 3. Non-sized, non-handed, and adjustable. Place closer inside building, stairs, and rooms.
- 4. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
- 5. Adjustable to open with not more than 5.0-pounds pressure to open at exterior doors and 5.0-pounds at interior doors. As allowed per California Building Code, Section 1133B.2.5 and 1008.1.3, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15-pounds.
- 6. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
- 7. Extra-duty arms (EDA) at exterior doors scheduled with parallel arm units.
- 8. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
- 9. Exterior doors: seasonal adjustments not required for temperatures from 120 degrees F to -30 degrees F, furnish checking fluid data on request.
- 10. Non-flaming fluid, will not fuel door or floor covering fires.
- 11. Pressure Relief Valves (PRV) not permitted.

- 12. Accepted as equivalent: Norton 7500 series.
- B. Surface Closers at residence units:
 - 1. Falcon SC61 series
- C. LCN Senior Swing:
 - 1. Comply with ANSI/BHMA 156.19: Electric power-open and close operation. Modular construction. Finished metal cover. Field-adjustable opening force, opening speed, time-open, closing and latching speeds. Door reopens and timing cycle restores if system reactuated during closing cycle. Breakaway clutch protection from forced closing. Door, frame, motor and drive train protected by attenuated initiation of opening cycle.
 - 2. Self-contained low-voltage power supply, terminal strip and sequencing for incorporation of electric hardware with system operation.
 - 3. Actuators: as scheduled
 - a) Vertical bar type: minimum 2 inches wide by 30 inches in height. Locate bar with bottom 5 inches maximum above finish floor, and top 35 inches minimum above finish floor. Display International Symbol of Accessibility pictogram.

2.7 OTHER HARDWARE

- A. Automatic Flush Bolts: Low operating force design.
- B. Overhead Stops: Non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.
- C. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet-metal screws of bronze or stainless steel to match other hardware.
- Door Stops: Provide stops to protect walls, casework or other hardware.
 - 4. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.
 - 5. Locate overhead stops for maximum possible opening. Consult with Owner for furniture locations. Minimum: 90deg stop / 95deg deadstop. Note degree of opening in submittal.
- E. Seals: Four-fingered type at head & jambs. Inelastic, rigid back, not subject to stretching. Self-compensating for warp, thermal bow, door settling, and out-of-plumb. Adhesive warranted for life of installation.
 - 1. Proposed substitutions: submit for approval.

- 2. Three-fingered type at hinge jambs of doors fitted with continuous hinges where jamb leaf of hinge is fastened to the frame reveal.
- F. Thresholds: As scheduled and per details. Comply with CBC Section 1133B.2.4.1. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.
 - 1. Saddle thresholds: 0.125 inches minimum thickness.
 - 2. Exteriors: Seal perimeter to exclude water and vermin. Use sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Minimum 0.25 inch diameter fasteners and lead expansion shield anchors, or Red-Head #SFS-1420 (or approved equivalent) Flat Head Sleeve Anchors (SS/FHSL).
 - 3. Fire-rated openings, 90-minutes or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use threshold unit as scheduled. If none scheduled, request direction from Architect.
 - 4. Fire-rated openings, 3-hour duration: Thresholds, where scheduled, to extend full jamb depth.
 - 5. Acoustic openings: Set units in full bed of Division-7-compliant, leave no air space between threshold and substrate.
 - 6. Plastic plugs with wood or sheet metal screws are not an acceptable substitute for specified fastening methods.
 - 7. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high security areas. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full-thread. Sleeve nuts: full length to prevent door compression.
- G. Through-bolts: Do not use. Coordinate with wood doors; ensure provision of proper blocking to support wood screws for mounting panic hardware and door closers. Coordinate with metal doors and frames; ensure provision of proper reinforcement to support machine screws for mounting panic hardware and door closers.
 - 1. Exception: surface-mounted overhead stops, holders, and friction stays.
- H. Silencers: Interior hollow metal frames, 3 for single doors, 4 for pairs of doors. Leave no unfilled/uncovered pre-punched silencer holes. Intent: door bears against silencers, seals make minimal contact with minimal compression only enough to effect a seal.

2.8 FINISH:

- A. Generally: BHMA 626 Satin Chromium.
 - 1. Areas using BHMA 626: furnish push-plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise scheduled.

B. Door closers: factory powder coated to match other hardware, unless otherwise noted.

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C.	Finish	designators	usea	ın	appended	nardware	scheaule:

ANSI	US	Description	Base Metal
600	USP	PRIMED FOR PAINTING	STEEL
626	US26D	SATIN CHROMIUM PLATED OVER NICKEL	BRASS, BRONZE
628	US28	SATIN ALUMINUM, CLEAR ANODIZED	ALUMINUM
630	US32D	SATIN STAINLESS STEEL	STAIN. STEEL 300 SER
652	US26D	SATIN CHROMIUM PLATED OVER NICKEL	STEEL
654	US32D	SATIN STAINLESS STEEL	STAIN. STEEL 400 SER
689	US28	ALUMINUM PAINTED	ANY
719	US27	MILL FINISH ALUMINUM UNCOATED	ALUMINUM
BLK		BLACK	ANY

2.9 KEYING REQUIREMENTS:

A. Key System: existing small format interchangeable core. For estimate use factory GMK charge. Initiate and conduct meeting(s) with Owner to determine system structure and keybow styles, furnish Owner's written approval of the system; do not order keys or cylinders without written confirmation of actual requirements from the Owner. Owner will order and supply permanent cylinders/cores. Owner/Contractor will install permanent cylinders/cores.

B. Keys

- 1. Construction keying: furnish keyed-alike temporary cores plus 10 operating keys. Temporary cores and keys remain property of hardware supplier.
- C. Interchangeable Cores: 7-pin solid brass construction.
- D. Permanent cores: furnish factory-keyed.
- **E.** Permanent keys and cores: use secured shipment direct from point of origination to Owner.
 - 1. For estimate: 3 keys per change combination, 5 master keys per group, 5 grand-master keys, 3 control keys.
 - 2. For estimate: VKC stamping plus "DO NOT DUPLICATE".
- F. Bitting List: use secured shipment direct from point of origination to Owner upon completion.

PART 3 - EXECUTION

3.1 ACCEPTABLE INSTALLERS:

A. Can read and understand manufacturers' templates, suppliers' hardware schedule and printed installation instructions. Can readily distinguish drywall screws from manufacturers' furnished fasteners. Available to meet with manufacturers' representatives and related trades to discuss installation of hardware.

3.2 PREPARATION:

- A. Ensure that walls and frames are square and plumb before hardware installation. Make corrections before commencing hardware installation. Installation denotes acceptance of wall/frame condition.
- A. Locate hardware per SDI-100 and applicable building, fire, life-safety, accessibility, and security codes.
 - Notify Architect of code conflicts before ordering material.
 - 2. Locate latching hardware between 34 inches to 44 inches above the finished floor, per California Building Code, Section 1008.1.9.2 and 1133B.2.5.2.
 - 3. Locate panic hardware between 36 inches to 44 inches above the finished floor.
 - 4. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.
- B. Overhead stops: before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

3.3 INSTALLATION

- A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.
 - Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc; fasten hardware over and through these seals. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
 - 2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.
 - 3. Use manufacturers' fasteners furnished with hardware items, or submit Request for Substitution with Architect.
 - 4. Replace fasteners damaged by power-driven tools.
- B. Locate floor stops no more that 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, door should be well clear of point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where situation is questionable or difficult, contact Architect for direction.
- Core concrete for exterior door stop anchors. Set anchors in approved non-shrink grout.

- D. Locate overhead stops for minimum 90 degrees at rest and for maximum allowable degree of swing.
- E. Drill pilot holes for fasteners in wood doors and/or frames.
- F. Lubricate and adjust existing hardware scheduled to remain.

 Carefully remove and give to Owner items not scheduled for reuse.

3.4. ADJUSTING

- A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.
 - 1. Hardware damaged by improper installation or adjustment methods: repair or replace to Owner's satisfaction.
 - 2. Adjust doors to fully latch with no more than 1 pound of pressure.
 - 3. Adjust delayed-action closers on fire-rated doors to fully close from fully-opened position in no more than 10 seconds.
 - 4. Adjust door closers per 1.9 this section.
- B. Inspection of fire door assemblies and means-of-egress panichardware doors: Hire an independent third-party inspection service to prepare a report listing these doors, and include a statement that there are zero deficiencies with the fire-rated assemblies and the openings with panic hardware.
- C. Fire-rated doors:
 - 1. Wood doors: adjust to 0.125 inches clearance at heads, jambs, and meeting stiles.
 - 2. Steel doors: adjust to 0.063 inches minimum to 0.188 inches maximum clearance at heads, jambs, and meeting stiles.
 - 3. Adjust wood and steel doors to 0.75 inches maximum clearance (undercut) above threshold or finish floor material under door.
- D. Final inspection: Installer to provide letter to Owner that upon completion installer has visited the Project and has accomplished the following:
 - 1. Has re-adjusted hardware.
 - 2. Has evaluated maintenance procedures and recommend changes or additions, and instructed Owner's personnel.
 - 3. Has identified items that have deteriorated or failed.
 - 4. Has submitted written report identifying problems.

3.5 DEMONSTRATION:

A. Demonstrate mechanical hardware and electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.6 PROTECTION/CLEANING:

- Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.
- B. Clean adjacent wall, frame and door surfaces soiled from installation / reinstallation process.

3.7 SCHEDULE OF FINISH HARDWARE

See door schedule in drawings for hardware set assignments. SPECWORKS # 124891-B8BH6RDVU

HW SET: NO1 EXT, VING + HIRSCH CARD ENTRY, AUTO-OPERATOR, PH

1	EΑ	POWER TRANSFER	EPT-10	689	VON
1	EΑ	CONTINUOUS HINGE	700 EPT	630	IVE
1	EΑ	ELECT PANIC HDW	RX-QEL98NL-OP	626	VON
1	EΑ	RIM CYLINDER	C953 WIC+CC	626	FAL
		*CARD ACCESS	*"CLASSIC" REMOTE CONTROLLER*	626	VIN
		READER*			
1	EΑ	OFFSET DOOR PULL	8190-0-0	630	IVE
1	EΑ	AUTO. OPERATOR	9542	628	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	FLOOR STOP	FS18S / FS18L	BLK	IVE
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	DRIP CAP	16 4"GDW (OMIT WHERE SHELTERED)	628	NGP
1	EΑ	CONCLD BTM SEAL	AMDB3 + CC	719	DHS
1	EΑ	THRESHOLD	659 COMBO	719	NGP
1	EΑ	POWER SUPPLY	PS914-BB-2Q		VON
2	EΑ	ACTUATOR	"INGRESS'R" I36-5	630	WIK
1	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

OPERATION:

AUTHORIZED CREDENTIAL MOMENTARILY RETRACTS LATCHBOLT AND CYCLES AUTOMATIC OPERATOR. ALWAYS FREE EGRESS FROM INSIDE.

ACCESS CONTROL SYSTEM WILL PROGRAM HOURS OF OPERATION FOR CARD HOLDERS.

ITEMS NOTED WITH "*" ARE PART OF THE LOW-VOLTAGE / ELECTRONIC SECURITY PACKAGE.

HW SET: NO2 RESIDENCE ENTRY, VING-CARD "HOTEL" LOCK

3	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1		*CARD ACCESS LOCK*	* *"CLASSIC" SERIES, CARD W/ KEY-BYPASS*	626	VIN
1	EΑ	SURFACE CLOSER	SC61 DEL RW/PA	689	FAL
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	MOP PLATE	8400 4" X 1" LDW	654	IVE
1	EΑ	FLOOR STOP	1211, OR	626	TRI
1	EΑ	WALL STOP	1276CCS	626	TRI

1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	CONCLD BTM SEAL	AMDB3 + CC AMU	719	DHS
1	EΑ	ADD'L VIEWER	U698 @ 42" AFF @ ACCSSBLE UNITS	626	IVE
1	EΑ	VIEWER	U698 @ 60" AFF	626	IVE

RESIDENCE ENTRY: HINGES, RESIDENCE CARD SYSTEM LOCKSET, MASTERKEY OVERRIDE, DOOR CLOSER, WALL STOP, KICKPLATE, HEAD/JAMB/BOTTOM SEALS, VIEWER.

HW SET: NO2-P RESIDENCE ENTRY, VING-CARD "HOTEL" LOCK, UNEQUAL-LEAF PAIR DOORS

6	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	SET	AUTO FLUSH BOLT	FB32	630	IVE
1		*CARD ACCESS LOCK*	*"CLASSIC" SERIES, CARD W/ KEY-BYPASS*	626	VIN
1	EΑ	COORDINATOR	COR + FL + MB, COMPLETE	628	IVE
1	EA	ASTRAGAL	148N	628	NGP
2	EΑ	SURFACE CLOSER	SC61 DEL RW/PA	689	FAL
2	EΑ	KICKPLATE	8400 12" X 1" LDW	654	IVE
2	EΑ	MOP PLATE	8400 4" X 1" LDW	654	IVE
2	EΑ	FLOOR STOP	1211, OR	626	TRI
2	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	MTG STILE SEAL	SA-B	BLK	DHS
2	EΑ	CONCLD BTM SEAL	AMDB3 + CC AMU	719	DHS
1	EΑ	ADD'L VIEWER	U698 @ 42" AFF @ ACCSSBLE UNITS	626	IVE
1	EΑ	VIEWER	U698 @ 60" AFF	626	IVE

RESIDENCE ENTRY: HINGES, RESIDENCE CARD SYSTEM LOCKSET, MASTERKEY OVERRIDE, DOOR CLOSER, WALL STOP, KICKPLATE, HEAD/JAMB/BOTTOM SEALS, VIEWER.

HW SET: NO3 RESIDENCE LAUNDRY / ET AL, KEY-CONTROLLED BY STAFF KEY

3	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	CLASSROOM LOCK	T361G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	MOP PLATE	8400 4" X 1" LDW	654	IVE
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS

OMIT DOOR CLOSER ARM'S HOLD-OPEN FEATURE AT FIRE-RATED ASSEMBLIES.

HW SET: NO4 MULTI-PURPOSE ROOM, KEY ENTRY

3	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EΑ	FIRE EXIT HARDWAR	E 98L-F 996L	626	VON
1	EΑ	RIM CYLINDER	C953 WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL (EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE

1	EΑ	WALL STOP	1276CCS	626	TRI
1	EA	WALL-MOUNT MAG	SEM 7800 SERIES, COMPLETE	689	LCN
		H.O.			
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	CONCLD BTM SEAL	AMDB3 + CC AMU	719	DHS

MULTIPURPOSE RM: HEAVY-WEIGHT HINGES, PANIC HARDWARE WITH LEVER OUTSIDE, KEY ACCESS (NO CARD), DOOR CLOSER, FIRE-ALARM-CONTROLLED ELECTROMAGNETIC HOLDOPEN DEVICE, KICKPLATE, HEAD / JAMB / BOTTOM SEALS.

DOOR CAN BE PLACED IN HELD-OPEN POSITION, AND WILL RELEASE TO CLOSE AND POSITIVELY LATCH IN A FIRE&LIFE-SAFETY ALARM EVENT.

HW SET: NO5 MULTI-OCCUPANT RESTROOM

3	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EΑ	HI-TRAFFIC CLSSRM	T381G7D DANE WIC+CC	626	FAL
		LK			
1	EΑ	FOOT-PULL	HTTP://WWW.FOOTPULL.COM/	630	
1	EΑ	SURFACE CLOSER	4041 DEL (EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	MOP PLATE	8400 4" X 1" LDW	654	IVE
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	TERRAZZO SILL	IN ANOTHER SECTION		B/O
		COND'N			

MULTI-OCCUPANT RESTROOM: HEAVY-WEIGHT HINGES, HIGH-FREQUENCY LOCK, DELAYED-ACTION CLOSER, KICKPLATE & MOP PLATE, HEAD & JAMB SEALS, WALL STOP.

DOOR BOTTOM NOT SEALED TO ALLOW FOR AIR INTAKE FROM CORRIDOR.

HW SET: NO6 INT STAIR DOOR

2	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EΑ	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 TW4	652	IVE
1	EΑ	ELECT FIRE EXIT	98L-F E996L FAIL-SAFE	626	VON
		DEV			
1	EΑ	RIM CYLINDER	C953 WIC+CC	626	FAL
		*CARD ACCESS	*"CLASSIC" REMOTE CONTROLLER*	626	VIN
		READER*			
1	EΑ	SURFACE CLOSER	4041 (EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	CONCLD BTM SEAL	AMDB3 + CC	719	DHS
1	EΑ	LOCK POWER SUPPLY	PS902 BB		SCE

FREE IMMEDIATE ENTRY INTO STAIR FROM ANY FLOOR, FREE IMMEDIATE FROM THE STAIR OUT TO THE EXTERIOR.

NORMAL OPERATION: CREDENTIAL REQUIRED TO ENTER THE CORRIDOR FROM THE STAIR.

POWER/WIRING/FIRE&LIFE-SAFETY SYSTEM INTERFACE REQUIRED, FAIL-SAFE LOCKING DEVICES AUTOMATICALLY UNLOCK IN AN ALARM EVENT ALLOWING ACCESS ONTO THE FLOOR FROM THE STAIR.

HW SET: NO7 RESIDENCE BEDROOM, SWINGING DOOR

3	EΑ	HINGE	5PB1 4.0 X 4.0	652	IVE
1	EΑ	PRIVACY SET	Y301S DANE	626	FAL
1	EΑ	WALL STOP	1276CCS	626	TRI

SWINGING DOOR, RESIDENCE BEDROOM: STD-WEIGHT PLAIN-BEARING HINGES, GRADE 2 PRIVACY LOCK, WALL STOP.

HW SET: NO8 RESIDENCE BATHROOM, SWINGING DOOR

3	EΑ	HINGE	5PB1 4.0 X 4.0	652	IVE
1	EΑ	PRIVACY SET	Y301S DANE	626	FAL
1	EΑ	WALL STOP	1276CCS	626	TRI
1	EΑ	COAT HOOK	582	626	IVE
1	EΑ	ADD'L COAT HOOK	582 @ ACCSSBLE UNITS	626	IVE

SWINGING DOOR, RESIDENCE BEDROOM: STD-WEIGHT PLAIN-BEARING STAINLESS STEEL OR BRASS/BRONZE BASE-METAL HINGES, GRADE 2 PRIVACY LOCK, WALL STOP, ROBE HOOK.

HW SET: NO9 RESIDENCE BED OR BATH, SLIDING POCKET DOOR

RESIDENCE POCKET DR: COMPLETE ASSEMBLY/PACKAGE FROM SUPPLIER

POCKET SLIDING DOOR ASSEMBLY: COMPLETE PACKAGE -- FRAME, DOOR, TRACK, HANGERS, PRIVACY LOCK, IN-TRACK STOP - ARE PART OF THE SUPPLIER'S ASSEMBLY.

HW SET: N10 STAFF OFFICE: CARD ACCESSED

2	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	THRU-WIRE HINGE	5BB1 4.5 X 4.0 TW4	652	IVE
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	FLOOR STOP	1211, OR	626	TRI
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	LOCK POWER SUPPLY	PS902 BB		SCE
1	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

ACCESS CONTROL COMPONENTS AND INTERFACE IN ANOTHER SECTION.

OMIT DOOR CLOSER ARM'S HOLD-OPEN FEATURE AT FIRE-RATED ASSEMBLIES.

HW SET: N11 UTILITY SPACE: KEY, NO CARD

3	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	STOREROOM LOCK	T581G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	FLOOR STOP	1211, OR	626	TRI
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS

OMIT DOOR CLOSER ARM'S HOLD-OPEN FEATURE AT FIRE-RATED ASSEMBLIES.

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HW SET: N12 DBL-EGRESS @ MAIN LOBBY

1	EΑ	POWER TRANSFER	EPT-10	689	VON
1	EΑ	CONTINUOUS HINGE	700	630	IVE
1	EΑ	CONTINUOUS HINGE	700 EPT	630	IVE
1	EΑ	FIRE EXIT HARDWAR	E 98EO-F	626	VON
1	EΑ	DELAYED EGRESS	CX98EO-F	626	VON
		F.E.D			
1	EΑ	MORTISE CYLINDER	C987 WIC+CC (CX ON/OFF)	626	FAL
2	EΑ	SURFACE CLOSER	4041 DEL EDA	689	LCN
2	EΑ	OVERHEAD STOP	100S	630	GLY
2	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
2	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
2	EΑ	CONCLD BTM SEAL	AMDB3 + CC	719	DHS
	EΑ	TERRAZZO SILL	IN ANOTHER SECTION		B/O
		COND'N			
1	EΑ	POWER SUPPLY	PS902-BB-FA		SCE
1	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

TWO SINGLE DOORS WITH FIXED CENTER MULLION. DELAYED EGRESS AT DOOR FROM LOBBY TO CORRIDOR. GUEST AND STAFF CARDS REQUIRED FOR PASSAGE FROM LOBBY TO CORRIDOR WITHOUT ALARM, DOOR UNLOCKS IN A FIRE-ALARM EVENT. FIRE&LIFE-SAFETY SYSTEM ALARM INTERFACE REQUIRED.

NORMAL STATE:

DOOR IS CLOSED, LATCHED, LOCKED AND ARMED. UNAUTHORIZED USER PRESSES DEVICE TOUCHBAR FOR OVER 2 SECONDS, INITIATING AN IRREVERSIBLE ALARM SEQUENCE, SOUNDING LOCAL ALARM AND ALERTING STAFF TO THE ATTEMPTED BREACH. AFTER 15 SECONDS, TOUCHBAR RELEASES AND ALLOWS USER TO FULLY DEPRESS THE TOUCHBAR AND EXIT THE DOOR. LOCAL ALARM CONTINUES TO SOUND UNTIL SILENCED BY AUTHORIZED STAFF MEMBER WITH VALID KEY.

AUTHORIZED PASSAGE FROM LOBBY TO CORRIDOR ACCOMPLISHED BY PRESENTING VALID CARD, WHICH MOMENTARILY DISARMS THE DEVICE AND SHUNTS THE ALARM.

FIRE ALARM STATE:

DOOR IS UNLOCKED/DISARMED FROM INSIDE, ALLOWING IMMEDIATE UNDELAYED EGRESS. OUTSIDE REMAINS LOCKED.

POWER OUTAGE:

DOOR IS UNLOCKED/DISARMED FROM INSIDE, ALLOWING IMMEDIATE UNDELAYED EGRESS. OUTSIDE REMAINS LOCKED.

HW SET: N12-HO DBL-EGRESS, MAG H.O.

2	EA	CONTINUOUS HINGE	700	630	IVE
2	EΑ	FIRE EXIT HARDWARE	19447EO-F-LBR	626	VON
2	EΑ	SURFACE CLOSER	4041 DEL EDA	689	LCN
2	EΑ	SENTRONIC HOLDER	4040SEH	689	LCN
2	EΑ	OVERHEAD STOP	100S-SE	630	GLY
4	EΑ	KICKPLATE	8400 12" X 1" LDW	654	IVE
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	MTG STILE SEAL	SA-B	BLK	DHS
	EΑ	TERRAZZO SILL	IN ANOTHER SECTION		B/O
		COND'N			

-- CONSIDER ELECTROMAGNETIC H.O. HERE?

HW SET: N13 SINGLE-OCCUPANT RESTROOM: PRIVACY LOCK

3	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	PRIVACY SET	T301S DANE	626	FAL
1	EΑ	FOOT-PULL	HTTP://WWW.FOOTPULL.COM/	630	
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	MOP PLATE	8400 4" X 1" LDW	654	IVE
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
2	EΑ	COAT HOOK	582, 60" & 48" A.F.F.	626	IVE
2	EΑ	COAT HOOK	582, 60" & 48" A.F.F.	626	IV

OMIT DOOR CLOSER ARM'S HOLD-OPEN FEATURE AT FIRE-RATED ASSEMBLIES.

HW SET: N14 EXTERIOR UTILITY DOOR, CARD ACCESSED

2	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1	EΑ	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 TW4	630	IVE
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	FLOOR STOP	FS18S / FS18L	BLK	IVE
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	DRIP CAP	16 4"GDW (OMIT WHERE SHELTERED)	628	NGP
1	EΑ	CONCLD BTM SEAL	AMDB3 + CC	719	DHS
1	EΑ	THRESHOLD	659 COMBO	719	NGP
1	EΑ	LOCK POWER SUPPLY	PS902 BB		SCE
1	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

HW SET: N15 EXTERIOR UTILITY DOOR, CARD ACCESSED

5	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1	EΑ	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 TW4	630	IVE
1	EA	MANUAL FLUSH BOLT	FB457-18" (BOTTOM)	630	IVE
1	EA	CONST LATCHING	FB51T (TOP)	630	IVE
		BOLT			
1	EA	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
1	EA	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EA	HYDRAULIC CHECK	4041 HEDA ST2687	BLK	LCN
2	EA	KICKPLATE	8400 12" X 1" LDW	654	IVE
2	EA	FLOOR STOP	FS18S / FS18L	BLK	IVE
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EA	DRIP CAP	16 4"GDW (OMIT WHERE SHELTERED)	628	NGP
2	EA	SURFACE BTM SEAL	SSDB3-3	628	DHS
1	EA	THRESHOLD	659 COMBO	719	NGP
1	EA	LOCK POWER SUPPLY	PS902 BB		SCE
2	EA	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

HW SET: N16 UTILITY SPACE: KEY, NO CARD

6	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	SET	CONST LATCHING	FB52	630	IVE
		BOLT			
1	EΑ	ASTRAGAL	139SP SNB	600	NGP
1	EΑ	STOREROOM LOCK	T581G7D DANE WIC+CC	626	FAL
1	EΑ	COORDINATOR	COR + FL + MB, COMPLETE	628	IVE
2	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
2	EΑ	KICKPLATE	8400 12" X 1" LDW	654	IVE
2	EΑ	FLOOR STOP	1211, OR	626	TRI
2	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	MTG STILE SEAL	SA-B	BLK	DHS

NOTE: DOORS DRAWN AS OPPOSITE SWING, NEED TO BE SAME-DIRECTION-SWING FOR FIRE-LABEL.

HW SET: N17 DBL-EGRESS: CROSS-CORRIDOR, ALARMED W/ CARD BYPASS

5	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EΑ	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 TW4	652	IVE
1	EΑ	POWER TRANSFER	EPT-10	689	VON
1	EΑ	FIRE EXIT HARDWAR	ERX-9847EO-F-LBR	626	VON
1	EΑ	FIRE EXIT HARDWAR	ECX9847EO-F	626	VON
4	EΑ	KICKPLATE	8400 12" X 1" LDW	654	IVE
2	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
2	EΑ	MTG STILE SEAL	SA-B	BLK	DHS

FIRE&LIFE-SAFETY SYSTEM ALARM INTERFACE REQUIRED.

NORMAL STATE:

DOOR IS CLOSED, LATCHED, LOCKED AND ARMED. UNAUTHORIZED USER PRESSES DEVICE TOUCHBAR FOR OVER 2 SECONDS, INITIATING AN IRREVERSIBLE ALARM SEQUENCE, SOUNDING LOCAL ALARM AND ALERTING STAFF TO THE ATTEMPTED BREACH. AFTER 15 SECONDS, TOUCHBAR RELEASES AND ALLOWS USER TO FULLY DEPRESS THE TOUCHBAR AND EXIT THE DOOR. LOCAL ALARM CONTINUES TO SOUND UNTIL SILENCED BY AUTHORIZED STAFF MEMBER WITH VALID KEY.

AUTHORIZED USERS CAN PRESENT VALID CREDENTIAL, WHICH MOMENTARILY SHUNTS THE ALARM AND DISARMS THE DEVICE, ALLOWING USER TO GO THROUGH THE DOOR. DOOR RECLOSES AND REARMS.

FIRE ALARM STATE:

DOOR IS UNLOCKED/DISARMED FROM PUSH-SIDE, ALLOWING IMMEDIATE UNDELAYED EGRESS.

POWER OUTAGE:

DOOR IS UNLOCKED/DISARMED FROM PUSH-SIDE, ALLOWING IMMEDIATE UNDELAYED EGRESS. ACCESS CONTROL COMPONENTS AND INTERFACE IN ANOTHER SECTION.

HW SET: N18 TRAINING KITCHEN, CARD-ACCESSED

5	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	THRU-WIRE HINGE	5BB1 4.5 X 4.0 TW4	652	IVE
1	SET	CONST LATCHING	FB52	630	IVE
		BOLT			
1	EΑ	ASTRAGAL	139SP SNB	600	NGP
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
1	EΑ	COORDINATOR	COR + FL + MB, COMPLETE	628	IVE
2	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
2	EΑ	KICKPLATE	8400 12" X 1" LDW	654	IVE
2	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	MTG STILE SEAL	SA-B	BLK	DHS

NOTE: DOORS DRAWN AS OPPOSITE SWING, NEED TO BE SAME-DIRECTION-SWING FOR FIRE-LABEL.

HW SET: N19 STAFF SPACE: KEY, NO CARD

3	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	CLASSROOM LOCK	T361G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	FLOOR STOP	1211, OR	626	TRI
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS

OMIT DOOR CLOSER ARM'S HOLD-OPEN FEATURE AT FIRE-RATED ASSEMBLIES.

HW SET: N20 ELECTL CLOSET

6	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
1	SET	CONST LATCHING	FB52	630	IVE
		BOLT			
1	EΑ	ASTRAGAL	139SP SNB	600	NGP
1	EΑ	STOREROOM LOCK	T581G7D DANE WIC+CC	626	FAL
1	EΑ	COORDINATOR	COR + FL + MB, COMPLETE	628	IVE
2	EΑ	SURFACE CLOSER	4041 SHCUSH	689	LCN
2	EΑ	KICKPLATE	8400 12" X 1" LDW	654	IVE
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	MTG STILE SEAL	SA-B	BLK	DHS

HW SET: N21 2ND FLR SOCIAL SPACE, CARD ACCESS TO THE CORRIDOR, FAIL-SAFE UNLOCK

5	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EΑ	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 TW4	652	IVE
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC, FAIL-SAFE	626	FAL
2	EΑ	SURFACE CLOSER	4041 DEL (EDA)	689	LCN
2	EΑ	OVERHEAD STOP	900S	630	GLY
2	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	MTG STILE SEAL	SA-B	BLK	DHS
1	EΑ	SMOOTH-FACE ASTRG	L 158S	628	NGP
2	EΑ	CONCLD BTM SEAL	AMDB3 + CC	719	DHS
1	EΑ	POWER SUPPLY	PS902-BB-FA		SCE
2	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

ACCESS CONTROL COMPONENTS AND INTERFACE IN ANOTHER SECTION. OPERATION: USER PRESENTS AUTHORIZED CREDENTIAL TO ENTER CORRIDOR FROM THE SOCIAL SPACE. DOOR UNLOCKS IN A FIRE-ALARM EVENT.

ALWAYS FREE ACCESS TO THE SOCIAL SPACE FROM THE CORRIDOR.

HW SET: N22 UTILITY SPACE, CARD ACCESSED (INCLUDES BOTTOM SEAL)

2	EA	HINGE	5BB1 4.5 X 4.0	652	IVE
1	EΑ	THRU-WIRE HINGE	5BB1 4.5 X 4.0 TW4	652	IVE
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	KICKPLATE	8400 12" X 2" LDW	654	IVE
1	EΑ	FLOOR STOP	1211, OR	626	TRI
1	EΑ	WALL STOP	1276CCS	626	TRI
1	SET	PERIMETER SEALS	105-B HEAD AND JAMBS	BLK	DHS
1	EΑ	CONCLD BTM SEAL	AMDB3 + CC	719	DHS
1	EΑ	THRESHOLD	613 COMBO	719	NGP
1	EΑ	LOCK POWER SUPPLY	PS902 BB		SCE
1	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

ACCESS CONTROL COMPONENTS AND INTERFACE IN ANOTHER SECTION.

OMIT DOOR CLOSER ARM'S HOLD-OPEN FEATURE AT FIRE-RATED ASSEMBLIES.

HW SET: N23 EXTERIOR GATE @ MECH ENCLOSURE, CARD ACCESSED

3	EΑ	HINGE	6 X 6 WELDABLE		
1	EΑ	ELECTRIC HINGE	6 X 6 WELDABLE		
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN
1	EΑ	LOCK POWER SUPPLY	PS902 BB		SCE
1	EΑ	DOOR POSITION	679-05 SERIES		SCE
		SWITCH			

ACCESS CONTROL COMPONENTS AND INTERFACE IN ANOTHER SECTION. SEE DRAWINGS FOR ADDITIONA GATE COMPONENTS

HW SET: N24 EXTERIOR GATE @ GARDEN WALKWAY, CARD ACCESSED

2	EΑ	HINGE	6 X 6 WELDABLE		
1		*CARD ACCESS LOCK	* *"CLASSIC" SERIES, CARD W/ KEY-BYPASS*	626	VIN
1	EΑ	SURFACE CLOSER	4041 DEL H(EDA)	689	LCN

SEE DRAWINGS FOR ADDITIONAL GATE COMPONENTS

HW SET: N25 EXTERIOR GATE, KEY ACCESS FOR MAINTENANCE ONLY

2	EΑ	HINGE	6 X 6 WELDABLE		
1		DOUBLE CYLINDER	D131	626	FAL
		DEADBOLT			

SEE DRAWINGS FOR ADDITIONAL GATE COMPONENTS

MAINTENANCE MATERIAL:

6	EΑ	HINGE	5BB1 4.5 X 4.0	652	IVE
2	EΑ	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
12	EΑ	HINGE	5PB1 4.0 X 4.0	652	IVE
2	EΑ	ELECTRIC HINGE	5BB1HW 4.5 X 4.5 TW4	630	IVE
1	EΑ	CLASSROOM LOCK	T361G7D DANE WIC+CC	626	FAL
1	EΑ	STOREROOM LOCK	T581G7D DANE WIC+CC	626	FAL
1	EΑ	ELECTRIC LOCKSET	T881G7D DANE WIC+CC	626	FAL
12	EΑ	IC CORE ONLY	C607, UNCOMBINATED	626	FAL
6	EΑ	PRIVACY SET	Y301S DANE	626	FAL
2	EΑ	SURFACE CLOSER	4041	689	LCN
6	EΑ	SURFACE CLOSER	SC61 DEL RW/PA	689	FAL
1	EΑ	LOCK POWER SUPPLY	PS902 BB		SCE
1	EΑ	BINDER	CATALOG CUTS AND HARDWARE SCHEDULE FOR		
			PROJECT		
1	SET	SPECIAL TOOLS	DRIVERS, WRENCHES, ETC		
1	EΑ	BINDER	INST/MAINT/ADJUSTMENT INFO EA ITEM		
4	EΑ	COAT HOOK	582	626	IVE

END OF SECTION

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